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ABSTRACT

This study examined the effects of mothers' and fathers' occupational conditions on children's home environments, and of change in occupational and family conditions on change in home environments. The study used the 1986 and 1988 supplements to the National Longitudinal Surveys of Youth. Subjects were 781 married mothers with children aged 3 through 6 years in 1986. For mothers in dual-earner families, home environment was affected by mothers': (1) self-esteem and sense of mastery; (2) age (for older mothers); (3) work at a complex occupation; (4) marriage to a highly educated spouse; (5) having fewer children. Improvements over time in children's home environment were affected by spouse's occupational characteristics and age (for spouses who were younger). Declines in home environments occurred when additional children were born or the marriage ended. For mothers in male-earner families who were not employed in 1986, predictors of home environments were similar to those for mothers in families with two earners, with the exception that mothers' cognitive resources and spouses' wage level also had positive effects. Improvements in home environment in this group were also responsive to spouse's working conditions and changes in family circumstances. A list of references is included. (Author/BC)

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STABILITY AND CHANGE IN CHILDREN'S HOME ENVIRONMENTS:

THE EFFECTS OF PARENTAL OCCUPATIONAL EXPERIENCES AND FAMILY CONDITIONS

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ABSTRACT. This paper extends research on determinants of children's home environments by evaluating effects of the occupational conditions that mothers and fathers experience on the home environments they provide and on change in home environments as a function of change in occupational and family conditions. It utilizes the 1986 and 1988 mother-child supplements to the National Longitudinal Surveys of Youth (NLSY); selects the 781 married mothers with children aged 3 through 6 in 1986; and estimates multivariate regression equations predicting 1986 home environments, 1988 home environments, and change in home environments, as a function of earlier occupational and family conditions, parents' background and education, initial maternal cognitive and psychological resources, and intervening occupational and family changes. All analyses control for maternal ethnicity, child gender, and child health.

For mothers in dual-earner families, the home environment at each time point is significantly affected by mothers' self-esteem and sense of mastery; older age; working at a more substantively complex occupation; marriage to a more highly educated spouse; and having fewer children. Improvements over time in children's home environments are also affected by spouse's occupational characteristics (higher wages and longer work hours), and younger spouse age. Declines in the quality of the home environment occurred when additional children had been born or the mothers' marriage had ended; negative effects of marital termination were exacerbated when employment had also ended. For mothers in male-earner families who were not employed in 1986, predictors of home environments at each time point were similar, with mothers' cognitive resources and spouses' wage level also having direct positive effects. Improvements over time in this group were also responsive to spouse's working conditions and changes in family circumstances. Marital termination, particularly in combination with mothers' entry into employment status, was associated with declines in the quality of home environments.

The findings underscore the importance of the quality of occupational experiences, not merely differences in employment status, of both spouses, as well as parental cognitive and psychological resources, in understanding parents' ability to provide strong home environments. It also highlights the impact of occupational and family transitions on short-term changes in home environments. Given the importance of home environments in shaping children's intellectual and emotional outcomes, future longitudinal research is needed that examines the extent to which such effects persist over time.

STABILITY AND CHANGE IN CHILDREN'S HOME ENVIRONMENTS: THE EFFECTS OF PARENTAL OCCUPATIONAL EXPERIENCES AND FAMILY CONDITIONS

Children's family environments are a potent source of cognitive stimulation and affective experience; and previous research has established that the quality of family environments has important consequences for children's later academic achievement, emotional well-being, and behavior problems (Bradley 1985; Bradley and Caldwell 1987; Bradley, Caldwell, and Rock 1988; Parcel and Menaghan 1990; Rogers, Parcel, and Menaghan 1991).

Yet relatively little attention has been directed to studying the forces shaping the quality of family environments. In the psychological and educational literatures, study of determinants of home environment has emphasized stable attributes of the mother--particularly educational attainment, IQ, and ethnicity--as well as family composition--particularly father presence and family size--and total family economic resources (Bradley 1985; Bradley, Caldwell, and Rock 1988). We supplement these explanations by arguing that parental experiences inside and outside the home also affect home environments, and that changes in parental experiences are potential sources of change in children's lives as well.

The analysis that we report today aims to extend our understanding of determinants of home environments by evaluating effects of the occupational conditions that their mothers and fathers experience, and examining short-term change over time in home environments as a function of change in occupational and family conditions.

THEORETICAL BACKGROUND

Why Should Occupational Conditions Matter? Prior research and theory suggest that the conditions adults experience on the job, particularly their opportunities to exercise self-direction in substantively complex work, affect their cognitive functioning; their attitudes and values, including the values they hold for their children; and their own emotional well-being (Kohn and Schooler 1983; Kohn 1986; Siegal 1984; Voydanoff 1987). To the extent that

work experiences leave parents feeling uncertain of their own worth as well as emotionally distressed, they are less able to be emotionally available to their children or to provide them with responsive, stimulating environments (Piotrkowsky 1979; Belsky 1985; Menaghan 1991).

When parents' work is more substantively complex and offers greater opportunities for self-direction, parents place greater value on their children's developing self-direction, and they are somewhat less concerned with behavioral conformity per se (Kohn and Schooler 1983). Such parents put less emphasis on parental control and are less likely to worry about spoiling children by responsive and affectionate behavior: accordingly, they display more warmth and involvement, restrict the child's actions less frequently, and report less frequent spankings as well (Luster, Rhoads, and Haas 1989).

Occupations offering less desirable working conditions tend to offer fewer extrinsic benefits as well. Low wages are expected to hamper parental efforts to provide adequate material resources for this children, and to produce feelings of distress that affect parent-child interaction (Siegal 1984).

Effects of Family Composition and Characteristics. Consistent with earlier work, we expect that more difficult family circumstances, including higher number of children, also constrain parental nurturance and stimulation. In addition, the resources that both parents bring to their current situations are expected to affect parent-child interaction. Prior research has emphasized mothers' cognitive resources, but we consider father's cognitive resources as well. We also evaluate the effects of mother's psychological resources, as tapped by self-concept. We therefore control for these expected influences in assessing the effects of parental occupational conditions on children's family environments.

Explaining Stability and Change in Family Environments. The research emphasis on stable characteristics of the mother (particularly her educational level, IQ, and ethnicity) as shaping home environments suggests that the quality of such environments will be relatively consistent over time, with

advantaged families remaining advantaged and relatively disadvantaged families persisting in providing sub-optimal home environments. BUt evidence on this is mixed: although Bradly and Caldwell (1987) characterize the quality of home environments as "moderately stable" through the first few years, they also note that stability varied across race-gender groups and was lower for non-whites and for boys. While emphasis on stable maternal attributes suggests stability in home environments over time, other factors are expected to produce change. For many families, children's early years are punctuated by multiple changes in both work and family life. We have argued that conditions at work and at home affect parents' abilities to provide good environments. We argue that changes in occupational circumstances, including employment loss or gain, and changes in family circumstances, such as the birth of a new child or the disruption of the marriage, will bring changes to parent-child interaction as well. Consideration of the impact of such changes, as well as effects of presumably more stable parental attributes, permits a more adequate examination of these issues.

THE RESEARCH SAMPLE

The analysis utilizes the 1986 and 1988 mother and child supplements to the National Longitudinal Survey of Youth (NLSY). Beginning in 1979, the NLSY has been following approximately 6,000 women with annual interviews regarding their educational, occupational, marital and fertility experiences. More than half of these have borne children, and assessments of the children born to this cohort of women were completed in 1986, 1988, and 1990.

This analysis selects married mothers with employed husbands who had at least one child aged 3 through 6 in 1986. When more than one child in this age group was present, we selected the younger child as our target child. Because we expect the character of mothers' occupations to affect home environment, the present study analyzes separately mothers who were employed and so in dual-earner households, and male-earner family households in 1986. We also provide explicit tests for differences between the two groups. The sample includes 438

dual-earner and 343 single-earner families. The data are weighted to correct for the initial over-sampling of minority and low-income youth in the sampling frame.

Measurement of Variables

Home environments are assessed using an abridged version of the HOME scales developed by Bradley and Caldwell (Bradley and Caldwell 1977; 1979; 1984; Bradley, Caldwell, Rock, Hamrick, and Harris 1988). The items adapted for the NLSY included both maternal report and interviewer observations, and varied somewhat for different ages of children. Exploratory factor analyses using the 1986 data and all age-appropriate children (see Parcel and Menaghan 1989), as well as confirmatory factor analyses with the 1988 data, suggested a stable factor structure across time, and suggested three major dimensions consistent with the original Bradley and Caldwell conceptualization--cognitive stimulation, maternal responsiveness, and physical environment. Table 1 displays the items in each of the subscales and the subscale reliabilities. Items loading on these dimensions are summed to construct the global measure of quality of home environment used here.

Alpha reliabilities for the global measure range between .69 and .72 for the 1986 and 1988 measures for the two age groups. Since items varied for children 3 through 5 and those 6 and older, we standardized scales within these age groups and combined across the two age groups to create the global measure of home environments used in this analysis. Rather than standardizing items using time-point-specific means and variances, we used 1986 means and standard deviations to standardize items at both time points. This procedure maintains any changes in level or variability that may have occurred between 1986 and 1988.

We focus on occupational complexity, wage levels, and work hours as key aspects of both parents' work experiences. Measures of parental occupational conditions are constructed from Dictionary of Occupational Titles data compiled by the U.S. Department of Labor and matched to the detailed Census occupational

code for parents' current jobs. The measure of substantive complexity includes items describing occupational content in terms of direction, control and planning; influencing people; complexity of working with data and people; numerical and verbal aptitudes required; and low extent of repetitive or continuous processes. Reliability for the 19-item scale is .94. We measure the extent of employment in terms of usual hours worked per week. Wage levels are measured by hourly wage for each parent. This is asked directly for mothers. We estimate it for fathers by dividing reported total annual earnings by the product of usual work hours per week and total weeks worker per year.

For both parents, we have measures of educational attainment and age. The mothers' cognitive measure is indexed by combining her educational attainment and a standardized measure of cognitive skills, the Armed Forces Qualifying Test, which all NLS Youth completed in 1980. We also constructed a maternal self-concept index combining sense of mastery, as measured by a 4-item subscale from Rotter's Locus of Control scale completed in 1979, and self-esteem, measured with the 10-item Rosenberg measure completed in 1980. Comparable measures of cognitive skills and self-concept are not available for fathers.

We consider four changes over time: husband being employed in 1986 but not employed in 1988; mother being employed in 1986 but not employed in 1988, or the converse, mother not being employed in 1986 and employed in 1988; one or more additional children born between the 1986 and 1988 interviews; and husband no longer living in the household in 1988.

Ethnicity is measured using dummy variables to distinguish white, black, Mexican-American and other Hispanic mothers. Child health problems are considered present if the mother reports that the child has problems that affect his or her ability to attend school, play sports, or play with other children. Child gender is coded 1 if male, and child birth weight is measured in pounds and based on maternal report.

DESCRIPTIVE FINDINGS

This report highlights the description of the sample and the multivariate

findings. The more detailed group descriptions, bivariate correlations, and complete specifications of equations are included in Tables 2 through 5. Table 2 displays the descriptive characteristics and bivariate correlations with the 1986 and 1988 home scores for the dual-earner families, and Table 3 presents the parallel information for the male-earner families.

THE DUAL-EARNER FAMILIES. These families were headed by married couples who both had some employment in 1986. The age cohort of the NLSY sample constrains the range of maternal age that we observe. In 1986, all mothers were between 21 and 28 (mean age = 25.9) and in our sample, all had at least one child age 3 through 6. These relatively young married employed mothers were mostly high school graduates (62%), with relatively few (14.0%) who did not complete high school and relatively few (5.0%) college graduates. Twenty four percent had one child, 59% two, and only 17% had 3 or more.

Just over half of the employed mothers worked 35 to 40 hours a week. Ten percent worked fewer than 20 hours, while another 10 percent had routine work weeks of 41 hours or more. The occupational complexity of their occupations was below the average for all occupations; typical occupations were secretary, child care worker, and food service worker. Wage levels were moderate, with mothers averaging about $5.50 per hour in their 1986 job.

Husbands' mean work hours were higher, reflecting the rarity of part-time work (less than 5% worked fewer than 35 hours) and the high proportions (40%) who routinely worked more than 40 hours a week. Substantive complexity of fathers' jobs was similar to that of mothers, but the men's hourly wages were higher, averaging about $9.00 per hour.

Nearly a quarter of this young sample have had additional children in the intervening two years. Husbands' employment has been quite stable (only 2 percent of these initially employed husbands were not also employed in 1988), but change in employment status for the mothers has been common, with 22% no longer employed at the time of the 1988 interview. Marital changes have also been fairly frequent, with 13 percent of these married dual-earner families no

longer living together two years later.

THE MALE-EARNER FAMILIES. Except for mothers' not being employed in 1986, the male-earner families are generally similar to the dual-employed families (Table 3). The direction of differences, however, are noteworthy: the initially non-employed mothers are significantly lower on measures of their own cognitive and psychological resources -- AFQT, years of schooling, esteem, and mastery are all poorer -- but their spouses' characteristics tend to be somewhat higher than the spouses of the employed mothers -- spouse education, hourly pay, and work hours are all significantly higher. More of the mothers were not high school graduates (24.5 versus 14.0 percent) although similar numbers had completed college (5.1 versus 5.0 percent). More of the fathers were college graduates (10.9 versus 7.5 percent) and fewer had not finished high school (15.1 versus 19.0) percent.

Husbands' mean work hours were similar in the two groups; but more fathers in male-earner families were working very long hours, with 16% of single-earner fathers but only 2% of dual-earner fathers reporting usual work weeks of 60 hours or more. Hourly wage levels were about $1.50 higher for the fathers in male-earner families. Family size also differed: Fewer single-earner families had only one child (17.3 versus 24.3%), and more (29.6 versus 17.0%) had 3 or more children.

Like the initially employed mothers, changes in family and employment were quite common, with about 1 in 4 having an additional child and 13 percent ending their marriage. While few husbands became unemployed, fully 41 percent of these initially non-employed mothers had become employed by 1988.

EXPLAINING HOME ENVIRONMENTS: MULTIVARIATE ANALYSES

Despite these multiple changes in occupational and family circumstances, home environment scores are relatively stable, with an over-time correlation of .49 (.42 for dual-earner families and .56 for male-earner families). These over-time correlations underestimate stability of home environments, since they do not adjust for measurement error. Using an alpha coefficient of .70

as an estimate of reliability yields corrected over-time correlations of .70 overall, and .60 and .80 respectively.

The two groups do not differ on level of home environment scores in 1986 or 1988, although scores for the dual-earner families have lower variance (observed 1986 standard deviations are .889 and 1.014, respectively). These home environment means are significantly higher for these children with married mothers than for same-age NLSY children with not-married mothers. Comparison of mean levels in 1986 and 1988 suggests that both groups on average have shown some improvement in home environments over time.

Multivariate models are estimated to predict 1988 child home environments, and change in home environments from 1986 to 1988, as a function of earlier (1986) occupational and family circumstances, both parents' background and education, and initial maternal resources, as well as intervening changes in family composition and employment experience. All analyses control for child health, gender, and ethnicity. Multivariate regression models are highlighted in Figure 1 and presented in greater detail in Tables 4 and 5. The first panel of Tables 4 and 5 presents effects for the 1986 home environment measure; the second focuses on 1988 scores. The final panel addresses the key question of change over time: with 1986 HOME environment in the equation as a predictor, coefficients for the other explanatory variables portray effects on change in home environments.

DUAL-EARNER FAMILIES. As Table 4 shows, predictors of absolute levels of home environment quality are similar in 1986, when the children were 3 through 6, and in 1988, when the children were 5 through 8 years old. Mothers with more positive self-concepts, older mothers, and mothers with more substantively complex 1986 occupations are providing better home environments in 1986 and 1988. Fathers' educational attainments also have positive effects at both time points. In addition, fathers' 1986 working conditions, as indexed by longer work hours and higher hourly wages, are initially non-significant but have positive effects on 1988 levels. Age of fathers has

little impact on 1986 home environments, but is associated with more negative environments in 1988.

Smaller family size has a positive impact on home environments at each time point. Black and Mexican-American children are characterized by less positive home environments in 1986 and 1988, although these differences diminish somewhat over time. Boys have more positive environments in 1986, but this difference is not significant in 1988.

Some of these same variables predict change over time as well. Maternal self-concept and smaller family size are associated with greater improvement over time. Fathers' 1986 working conditions also affect change: higher wages and longer hours predict improvement in home environments. Both the birth of additional children and the departure of husbands from the home are associated with negative changes over time and lower absolute 1988 scores. Mothers' no longer being employed in 1988 has no direct effect on 1988 home or on changes over time. However, change in employment status interacts with marital disruption: when both changes have occurred, the effects are significantly more negative (equation not shown).

MALE-EARNER FAMILIES. The findings for male-earner families are similar in many ways. Once more, maternal self-concept has an important positive effect on home scores at each time point. Non-employed mothers' cognitive skills appear to substitute for the occupational complexity effects observed for the employed mothers, with significant effects on both 1986 and 1988 home environments. Although the single-earner fathers' educational attainments have no direct positive effects, their occupational characteristics have significant effects in 1986 as well as 1988. As with the dual-earner families, smaller family size has a positive impact on home environments at each time point. Black and other Hispanic children have less positive home environments in 1986, but these differences are not significant in 1988. Child gender has no significant effects at either time point.

As was found for the dual-employed families, maternal self-concept and

smaller family size produce improvements in home environments over time. Again, fathers' 1986 working conditions are also linked to improvements: higher occupational complexity, higher wages, and longer hours all have positive effects. Once more, the departure of husbands (but here not the addition of children) is associated with negative changes over time and lower absolute 1988 scores. Mothers' becoming employed has no direct effect on 1988 home or on changes over time. Paralleling the finding for employed mothers, however, changes in employment status interacted with marital changes: effects are more negative when the marriage has ended and mother has also moved into employment.

Additional analyses (not shown) explored possible non-linearities in effects of parental work hours. Dummy variables contrasted male part-time (less than 35 hours) and male over-time (greater than 40 hours) with male full-time (35 to 40 hours) work; given the greater heterogeneity among mothers' hours, low part-time (less than 20 hours) and moderate part-time (20-34 hours) were distinguished in addition to over-time (more than 40) work weeks; these three patterns were contrasted with full-time work schedules. In dual-earner families, the set of dummy variables representing maternal work hours was not significant in predicting 1986 or 1988 scores or change over time, although the pattern of coefficients suggested some advantages of moderate part-time maternal work schedules and disadvantages of regular over-time work weeks. Fathers' work weeks in dual-earner families had significant effects on 1988 scores and on changes over time, with part-time work more negative than full-time work; over-time work tended to be more negative than full-time work, but the difference was not statistically significant. Fathers' work week also had significant effects on 1988 scores and on change over time in male-earner families, but in these families working over-time had significantly more positive effects than full-time work weeks. Thus, in dual-earner families, the primary break appeared between less than full-time and full-time or more, while for male-earner families the break was between full-

time or less and more than full-time.

While the format of Figure 1 calls attention to some differences between the dual-earner and male-earner families in the statistical significance of effects, such differences do not necessarily imply that effects are significantly different from one another in the two groups. We conducted statistical tests explicitly evaluating the latter hypothesis, and found that in most cases effects are not significantly different from one another. The exceptions are the greater effect of 1986 Home on 1988 level for single-earner families, suggesting greater stability in home environments; more negative effects of spouse age among the dual-earner families; and significantly more negative effects of an additional child and less positive effect of high male work hours in families where both parents are employed. The latter differences suggest that family time and resources are at a greater premium in dual-earner families; the birth of additional children poses a particularly severe challenge, and extensive over-time hours for fathers leaves a larger gap in parental availability.

SUMMARY AND DISCUSSION

In summary, then, prior research has emphasized the positive effects of mothers' relatively stable intellectual resources on children's home environments. Our results also draw attention to the strong impact of parents' self-conceptions as psychological resources as well as fathers' intellectual resources. Our analyses also demonstrate that parents' occupational experiences make a difference: Employed mothers' occupational complexity clearly affects the home environments they provide their young children, and fathers' occupational conditions have an increasing influence over time in both male-earner and dual-earner families. Changing family circumstances are also critical: it is clear that marital disruption and the birth of an additional child may erode maternal provision of stimulation and nurturance--at least in the short term.

The initial differences among the dual-earner and male-earner families

also call attention to the relative pulls and pushes that shape family decisions regarding labor force participation. Male-earner families are disproportionately composed of men with relatively high earnings potential and women with relatively poor occupational prospects, making the division of labor they adopt (a non-employed mother and a full-time, often over-time employed father) a rational choice. In contrast, the employed young mothers have relatively good occupational prospects while their spouses are somewhat disadvantaged in earnings potential, making the dual-earner pattern adopted more advantageous for them than it would be for other families. Changes in maternal employment over time in both groups are responsive to the couples' characteristics and prospects (analyses not shown): movement into the labor force is predicted by higher education of the woman, lower spouse wages, and lower spouse education, while movement out of the labor force is more likely when wives have lower wage levels, their spouses are in more substantively complex and higher paying occupations, and they have had an additional child.

The high rates of mothers' movement in and out of employment call attention to the unstable nature of any cross-sectional categorization of mothers into two different "types"--employed and not employed. In this analysis, we have examined short-term shifts in maternal employment status as a potential source of change in home environments. Although in combination with a marital ending their effects are negative, these shifts in employment status per se are not particularly consequential. We suggest that we may achieve greater understanding of the effects of parental employment by focusing less on employment status at any single point in time, or on temporary shifts in status, and more on the nature of parents' occupational experiences, and the changes in workplace demands and opportunities, wages, and work hours that are occurring among workers. We are currently investigating these issues.

The finding that the relative quality of home environments is less predictable among dual-earner families with young children than among similar families with initially non-earning mothers is unexpected and needs

replication. We may speculate, however, that dual-earner families are facing more severe work-family conflicts and greater total demands as they balance the care of one or more young children with two occupations. Perhaps this is the reason that, despite dual-earner mothers' greater cognitive and psychosocial advantages, the initial home mean scores are not significantly higher in dual-earner families; and variability in home environments is more restricted in these families than in single-earner families. As the average burden eases as children grow a bit older and are more independent, average home scores rise more sharply (from .253 to .539 among dual-earner families, compared to moving from .245 to .475 among male-earner families), and families differentiate themselves in ways less predictable from the earlier observed level.

Our analysis suggests that home environments are responsive to occupational and family circumstances. It also highlights the impact of occupational and family transitions on short-term changes in home environments. Nevertheless, such findings should not obscure the overall high predictability of current home environments from those observed two years earlier, nor the continuing importance of relatively non-malleable parental cognitive and educational attributes and psycho-social resources, as well as family size. Maternal differences in self-concept measured nearly a decade earlier and family size have clear and cumulative effects on home environments, shaping both initial levels and changes over time. Fathers' occupational characteristics, also relatively stable as long as the marriage remains intact, appear to be increasing in importance over time. Given the importance of home environments in shaping children's intellectual and emotional outcomes, future longitudinal research is needed which examines the extent to which such effects persist over time.

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Figure 1. NLSY-HOME, 1986 and Changes from 1986-1988.

DUAL-EARNER FAMILIES

	HOME86	CHANGE IN HOME, 1986-1988
MOTHER'S CHARACTERISTICS:		
Self-Concept	+	+
Cognitive Resources		
Age (1986)	+	
MATERNAL WORKING CONDITIONS in 1986:		
Occupational Complexity	+	
Hourly Pay		
Hours Employed/Week		
FAMILY CHARACTERISTICS in 1986:		
Number of Children	-	-
SPOUSE CHARACTERISTICS in 1986:		
Yrs of Schooling (1986)	+	+
Age (1986)		-
SPOUSE'S WORKING CONDITIONS in 1986:		
Occupational Complexity		
Hourly Pay		+
Hours Employed/Week		+
HOME ENVIRONMENT in 1986		+
CHANGES, 1986-1988:		
Mother Not Employed by 1988		(*)
Spouse Not Employed by 1988		
Marriage Ended by 1988		-
More Children Born by 1988		-

SINGLE-EARNER FAMILIES

	HOME86	CHANGE IN HOME, 1986-1988
MOTHER'S CHARACTERISTICS:		
Self-Concept	+	+
Cognitive Resources	+	
Age (1986)		
FAMILY CHARACTERISTICS in 1986:		
Number of Children	-	-
SPOUSE CHARACTERISTICS in 1986:		
Yrs of Schooling (1986)		
Age (1986)		
SPOUSE'S WORKING CONDITIONS in 1986:		
Occupational Complexity		+
Hourly Pay	+	+
Hours Employed/Week		+
HOME ENVIRONMENT in 1986		+
CHANGES, 1986-1988:		
Mother Now Employed by 1988		(*)
Spouse Not Employed by 1988		
Marriage Ended by 1988		-
More Children Born by 1988		

Table 1. HOME ENVIRONMENT SCALES:
Item Statistics and Factor-Item Correlations for 1986.

	PRESCHOOLERS			SCHOOLAGERS		
	Loading	MEAN	S.D.	Loading	Mean	S.D.
COGNITIVE ITEMS						
Number of books of child's own	.59	3.73	.62	.35	3.87	.44
Frequency of reading stories to child	.50	4.34	1.24	.29	4.27	1.15
Family member helps child with shapes, sizes	.59	.80	.40			
Family member helps child with letters	.48	.92	.27			
Family member helps child with colors	.40	.95	.22			
Home has record player or tape recorder and at least five children's records or tapes	.38	.65	.48			
Number of magazines family gets regularly	.37	2.75	1.43			
Family member helps child with numbers	.36	.97	.17			
Frequency family takes child to performance				.65	1.76	.85
Frequency family takes child to a museum				.62	1.98	1.04
Child gets lessons				.36	.44	.50
Family encourages child's hobbies				.31	.90	.31
Frequency that child reads for pleasure				.32	3.59	1.44
Cronbach's alpha	.69			.59		
AFFECTIVE ITEMS						
Mother conversed pleasantly with child	.74	.84	.34	.80	.82	.39
Mother's voice conveyed positive feeling about child	.58	.93	.25	.70	.88	.33
Mother kissed, hugged, caressed child at least once	.41	.44	.50			
Mother responded to child's questions, requests	.67	.81	.39			
Mother answered child verbally				.72	.79	.41
Mother encouraged child verbal contributions				.62	.74	.44
Cronbach's alpha	.69			.80		
PHYSICAL ENVIRONMENT ITEMS						
All visible rooms were reasonably clean	.77	.93	.25	.68	.94	.24
No potentially dangerous hazards in preschooler's/schoolager's range	.51	.95	.22	.34	.80	.40
Home interior was not dark or perceptually monotonous	.45	.92	.26	.46	.87	.34
All visible rooms were minimally cluttered	.39	.81	.39	.44	.82	.38
Cronbach's alpha	.60			.55		

Note. Item statistics were calculated for all NLSY children using weighted data and listwise deletion; unweighted n is 1,391 for pre-schoolers, 1,218 for children six and older. Most items are coded dichotomously, with no=0, yes=1. Exceptions are: Number of books, coded none=1, one or two=2, 3 to 9=3, 10 or more=4; reading stories, coded 1=never, 2=several times a year, 3=several times a month, 4=once a week, 5=at least 3 times a week, 6=every day; child reads for enjoyment, coded never=1, several times a year=2, several times a month=3, several times a week=4, every day=5; number of magazines, coded 1=none, 2=1, 3=2, 4=3, 5=four or more; visited museum, gone to performance, both coded never=1, once or twice in past year=2, several times in past year=3, about once a month=4, about once a week or more=5.

Table 2. Means, Standard Deviations, and Correlations with 1986 and 1988 Home Environments. Dual-Earner Families in 1986.

	Mean	Standard Deviation	Correlation	
			HOME86	HOME88
NLSY-HOME 1988	.539	.751	.42	
NLSY-HOME 1986	.253	.889		
MOTHER'S CHARACTERISTICS:				
Self-Concept:	-.001	.819	.28	.30
Internal Locus (1979)	.323	2.300	.23	.22
Self Esteem (1980)	.702	6.406	.23	.27
Cognitive Resources:	-.012	.872	.23	.28
AFQT (1980)	70.385	18.314	.20	.24
Years of Schooling (1986)	12.154	1.608	.21	.27
Age (1986)	25.864	1.912	.27	.14
Ethnicity:				
Mexican American	.047	.212	-.15	-.10
Other Hispanic	.028	.165	.01	-.01
Black	.100	.300	-.11	-.12
White	.825	.380	.16	.16
SPOUSE'S CHARACTERISTICS:				
Spouse Yrs of School(1986)	12.195	1.697	.29	.25
Spouse Age (1986)	28.707	3.665	.10	-.06
FAMILY CHARACTERISTICS in 1986:				
Number of Children in 1986	1.976	.758	-.11	-.17
MATERNAL WORKING CONDITIONS in 1986:				
Occupational Complexity	-5.610	10.864	.20	.21
Hourly Pay	5.663	3.101	.10	.16
Hours Employed/Week	33.504	11.759	-.06	-.06
SPOUSE'S WORKING CONDITIONS in 1986:				
Occupational Complexity	-5.494	10.005	.10	.13
Hourly Pay	9.027	4.459	.15	.16
Hours Employed/Week	44.581	9.967	.04	.07
EMPLOYMENT CHANGES, 1986-1988:				
Mother Not Employed by 1988	.217	.412	-.04	-.12
Spouse Not Employed by 1988	.020	.140	.04	.04
FAMILY CHANGES, 1986-1988:				
Marriage Ended by 1988	.131	.338	-.09	-.12
More Children Born by 1988	.248	.432	-.03	-.06
CHILD CHARACTERISTICS:				
Male	.500	.501	.08	-.00
Health Problems in 1986	.043	.203	.02	.02
Birth Weight (lb)	7.536	1.193	-.04	.02

NOTE. Weighted data. N of cases= 438. All correlations at least |.07| are significant at $P < .05$, one tailed.

Table 3. Means, Standard Deviations, and Correlations with 1986 and 1988 Home Environments, Male-Earner Families in 1986.

	Mean	Standard Deviation	Correlations	
			HOME86	HOME88
NLSY-HOME 1988	.475	.875	.56	
NLSY-HOME 1986	.245	1.014		
MOTHER'S CHARACTERISTICS:				
Self-Concept:	-.174	.865	.33	.31
Internal Locus (1979)	-.045	2.536	.25	.24
Self Esteem (1980)	-.419	6.377	.29	.25
Cognitive Resources:	-.213	1.033	.38	.35
AFQT (1980)	66.343	20.496	.44	.27
Years of Schooling (1986)	11.801	1.841	.26	.33
Age (1986)	25.725	2.219	.12	.10
Ethnicity:				
Mexican American	.065	.247	-.15	-.13
Other Hispanic	.027	.163	-.14	-.06
Black	.077	.267	-.23	-.13
White	.831	.375	.32	.21
SPOUSE'S CHARACTERISTICS:				
Yrs of Schooling (1986)	12.447	2.000	.23	.25
Age (1986)	28.774	4.475	.03	.06
FAMILY CHARACTERISTICS in 1986:				
Number of Children in 1986	2.194	.832	-.14	-.23
MATERNAL WORKING CONDITIONS in 1986:				
Occupational Complexity	----	----	---	---
Hourly Pay	----	----	---	---
Hours Employed/Week	----	----	---	---
SPOUSE'S WORKING CONDITIONS in 1986:				
Occupational Complexity	-4.836	9.425	.24	.27
Hourly Pay	10.507	6.967	.14	.16
Hours Employed/Week	45.417	11.678	.13	.15
CHANGES IN EMPLOYMENT, 1986-1988:				
Mother Employed in 1988	.408	.492	-.05	-.05
Spouse Not Employed in 1988	.012	.108	-.09	-.07
FAMILY CHANGES, 1986-1988:				
Marriage Ended by 1988	.126	.333	-.10	-.19
More Children Born by 1988	.248	.432	-.02	-.01
CHILD CHARACTERISTICS:				
Male	.522	.500	.03	.08
Health Problems in 1986	.057	.232	.04	-.03
Birth Weight (lb)	7.455	1.197	.13	.11

NOTE. Weighted data. N of cases= 343. All correlations at least |.07| are significant at $P < .05$, one tailed.

Table 4. NLSY-HOME, 1986 and 1988: The Impact of Initial Parent, Child, and Family Characteristics, and Changes in Employment and Family Circumstances over Time: Dual-Earner Families in 1986.

	HOME86			HOME88			HOME88		
	B	beta	sr^2	B	beta	sr^2	B	beta	sr^2
MOTHER'S CHARACTERISTICS:									
Self Concept	.20	.18[a]		.16	.18[a]		.12	.13[c]	
Cognitive Resources	-.08	-.08		-.00	-.01		.01	.02	
Age (1986)	.11	.23[a]		.04	.10[d]		.01	.04	
Ethnicity:			.03[b]			.02[c]			.01
Mexican American	-.49	-.12[c]		-.23	-.07		-.12	-.03	
Other Hispanic	-.12	-.02		-.15	-.03		-.13	-.03	
Black	-.40	-.14[b]		-.29	-.12[c]		-.20	-.08[d]	
White	---	---		---	---		---	---	
SPOUSE'S CHARACTERISTICS:			.03[a]			.03[a]			.02[b]
Yrs of Schooling (1986)	.19	.23[a]		.07	.17[b]		.05	.10[d]	
Age (1986)	-.00	-.00		-.03	-.16[b]		-.03	-.15[b]	
FAMILY CHARACTERISTICS in 1986:			.03[a]			.04[a]			.02[a]
Number of Children	-.21	-.21[a]		-.21	-.21[a]		-.16	-.16[a]	
MATERNAL WORKING CONDITIONS in 1986:			.01[d]			.01			.01
Occupational Complexity	.01	.14[b]		.01	.10[d]		.00	.06	
Hourly Pay	-.01	-.05		.01	.05		.01	.06	
Hours Employed/Week	-.00	-.04		-.00	-.05		-.00	-.04	
SPOUSE'S WORKING CONDITIONS in 1986:			.00			.01[d]			.01[d]
Occupational Complexity	-.00	-.05		.00	.00		.00	.02	
Hourly Pay	.00	.02		.02	.11[c]		.02	.10[c]	
Hours Employed/Week	.00	.00		.01	.09[d]		.01	.09[d]	
EMPLOYMENT CHANGES, 1986-1988:									
Mother Not Employed by 1988				-.09	-.05		-.10	-.06	
Spouse Not Employed by 1988				-.43	-.08[d]		-.34	-.06	
FAMILY CHANGES, 1986-1988:									
Marriage Ended by 1988				-.26	-.12[c]		-.22	-.10[c]	
More Children Born by 1988				-.29	-.17[a]		-.26	-.15[a]	
CHILD CHARACTERISTICS:			.01			.01			.01
Male	.16	.09[c]		-.04	-.02		-.07	-.05	
Health Problems in 1986	.25	.06		.26	.07		.19	.05	
Birth Weight (lb)	-.03	-.04		.02	.04		.03	.05	
HOME ENVIRONMENT in 1986							.23	.27[a]	
Constant	-3.07[a]			-.43			.29		
R^2 (Adjusted R^2)			.24 (.21)			.26 (.22)			.32 (.28)

NOTE. [a] = P < .001, two-tailed test, P < .0005, one-tailed test.
[b] = P < .01, two-tailed test, P < .005, one-tailed test.
[c] = P < .05, two-tailed test, P < .025, one-tailed test.
[d] = P < .10, two-tailed test, P < .05, one-tailed test.
[e] Reference category for categorical variable.
All significance tests are performed with unweighted N of cases, 438.

Table 5. NLSY-HOME, 1986 and 1988: The Impact of Initial Parent, Child, and Family Characteristics, and Changes in Employment and Family Circumstances, Male-Earner Families in 1986.

	HOME86			HOME88			CHANGE IN HOME		
	B	beta	sr^2	B	beta	sr^2	B	beta	sr^2
MOTHER'S CHARACTERISTICS:									
Self-Concept	.27	.23[a]		.20	.20[a]		.11	.10[c]	
Cognitive Resources	.14	.14[c]		.13	.15[c]		.07	.08	
Age (1986)	-.01	-.03		-.04	-.10		-.03	-.08	
Ethnicity:			.03[b]			.00			.00
Mexican American	-.33	-.08		-.11	-.03		.01	.00	
Other Hispanic	-.67	-.11[c]		-.11	-.02		.14	.02	
Black	-.63	-.17[b]		-.05	-.02		.17	.05	
White	----	----		----	----		----	----	
SPOUSE CHARACTERISTICS in 1986:			.00			.00			.00
Yrs of Schooling (1986)	.02	.04		.03	.07		.02	.06	
Age (1986)	-.01	-.03		.01	.03		.01	.03	
FAMILY CHARACTERISTICS in 1986:			.01[d]			.04[a]			.03[a]
Number of Children	-.12	-.10[d]		-.23	-.22[a]		-.18	-.18[a]	
MATERNAL WORKING CONDITIONS in 1986:									
Occupational Complexity	----	----		----	----		----	----	
Hourly Pay	----	----		----	----		----	----	
Hours Employed/Week	----	----		----	----		----	----	
SPOUSE'S WORKING CONDITIONS in 1986:			.02[d]			.03[b]			.02[c]
Occupational Complexity	.01	.08		.01	.13[c]		.01	.09[d]	
Hourly Pay	.01	.10[d]		.02	.12[c]		.01	.09[d]	
Hours Employed/Week	.01	.07		.01	.13[c]		.01	.10[d]	
EMPLOYMENT CHANGES, 1986-1988:									
Mother Now Employed by 1988				-.13	-.07		-.07	-.04	
Spouse Not Employed by 1988				.17	.02		.17	.02	
FAMILY CHANGES, 1986-1988:									
Marriage Ended by 1988				-.26	-.10[d]		-.27	-.10[c]	
More Children Born by 1988				-.08	-.04		-.06	-.03	
CHILD CHARACTERISTICS:			.00			.01			.01
Male	.07	.03		.12	.07		.10	.05	
Health Problems in 1986	-.02	-.01		-.26	-.07		-.26	-.07	
Birth Weight (lb)	.04	.04		.03	.04		.02	.02	
HOME ENVIRONMENT in 1986							.36	.42[a]	.13[a]
Constant	.18			.77			.61		
R^2 (Adjusted R^2)			.26 (.23)			.29 (.24)			.42 (.37)

NOTE. [a] = P < .001, two-tailed test, P < .0005, one-tailed test.
[b] = P < .01, two-tailed test, P < .005, one-tailed test.
[c] = P < .05, two-tailed test, P < .025, one-tailed test.
[d] = P < .10, two-tailed test, P < .05, one-tailed test.
[e] Reference category for categorical variable.
All significance tests are performed with unweighted N of cases, 343.